CLARREO Mission Concept CLARREO TDRSS OBSERVATORY 1 S-Band CMD and S-Band RT Downlink (early orbit and anomaly support) S-Band CMD Uplink S-Band RT Downlink S-Band Stored Downlink **GNSS Radio Occultation** (RO): SI-traceable measurements of Doppler shifts (to determine **Orbits** IR Instrument: SI atmospheric refractivity) traceable measurements X-Band Stored Science Playback of the Mid and Far-IR spectrum of the Earth and atmosphere **Reflected Solar** Instrument: SI traceable measurements of reflected solar irradiance/reflectance **GPS Ground Station Ground Station** Poker Flats, Alaska Svalbard, Norway **Ground Station** CLARREO Science **CLARREO Orbit** Wallops Island, VA Data System LaRC, VA EELV VAFB **CLARREO IOC CLARREO MOC** 609 km circular LaRC, VA Location: TBD 90 degree inclined

